IN THE CLAIMS:

A complete listing of the claims is set forth below:

1.   **(Previously Presented)** A system for automatically updating graphical user interface (GUI) elements at a client system according to an updated state of a configuration, the system comprising one or more software components at the client system operable to:

display a GUI element at the client system in connection with a configuration workflow, the GUI element being associated with one or more configuration choices being available for a configuration element of a configuration model stored at a server system;

create and maintain at the client system a connector linking a property of the configuration element of the configuration model to the GUI element;

maintain at the client system configuration data representing a current state of a configuration in relation to the configuration model;

in response to a configuration choice selection at the GUI element during the configuration workflow, receive data from the server system representing an update to the current state of the configuration with respect to the property of the configuration element; and

use the connector linking the property of the configuration element to the GUI element to cause other GUI elements to be automatically updated to reflect the updated state of the configuration with respect to the property of the configuration element in order to associate available configuration choices for the other GUI elements according to the configuration choice selection.

2.   **(Original)** The system of Claim 1, wherein the connector is created automatically at the client system in response to the GUI element being generated for display at the client system.

3. **(Previously Presented)** The system of Claim 1, wherein the connector allows other GUI elements to be automatically updated to reflect the updated state of the configuration without requiring data associated with any properties of any configuration elements unaffected by the configuration choice selection to be communicated from the server system to the client system and without requiring any GUI elements unaffected by the update to be updated.

4. **(Previously Presented)** The system of Claim 1, wherein:

the configuration model comprises a plurality of configuration elements, each configuration element involving one or more configuration choices each having one or more configuration element properties; and

the software components are further operable to create and maintain at the client system a separate connector for each configuration element property that is to be linked to one of a plurality of GUI elements, such that each configuration element property may be linked to one or more GUI elements using separate connectors and each GUI element may be linked to one or more configuration element properties using separate connectors.

5. **(Original)** The system of Claim 1, wherein code used to create the connector at the client system comprises a format string as a parameter, the format string allowing for Hypertext Markup Language (HTML) formatting of the GUI element linked to the connector according to the format string.

6.   **(Previously Presented)** The system of Claim 1, wherein code used to create the connector at the client system comprises a format string comprising JavaScript code, the format string allowing:

the updated state of the configuration to be determined in response to the configuration choice selection associated with the GUI element linked to the connector; and

if appropriate according to the updated state of the configuration, a different Hypertext Markup Language (HTML) class to be used for displaying the GUI element linked to the connector.

7.   **(Original)** The system of Claim 1, wherein code used to create the connector at the client system comprises a format string comprising JavaScript code, the format string allowing information associated with a configuration element specified in the format string to be obtained and used.

8.   **(Previously Presented)** The system of Claim 1, wherein the software components are further operable to create and maintain at the client system:

a connector linking specified Hypertext Markup Language (HTML) layer content to a JavaScript function, the connector operable to be used to call the JavaScript function in response to the configuration choice selection associated with the HTML content to indicate the configuration choice selection;

a connector linking a specified HTML layer property to the JavaScript function, the connector operable to be used to call the JavaScript function in response to the configuration choice selection associated with the HTML layer to indicate the configuration choice selection; and

a connector linking the JavaScript function to a callback operable to communicate the configuration choice selection to the server system and, in response, receive the data representing the update from the server system.

9.   **(Previously Presented)** The system of Claim 1, wherein the one or more software components comprise:

a first frame associated with a web page and generated at the server system for communication to the client system upon initiation of the configuration workflow, the first frame operable to:

maintain the connector at the client system;

store the data representing the update to maintain configuration data representing the updated current state of the configuration at the client system;

according to the data representing the update, determine the property of the configuration element;

determine the connector for the property; and

using the connector for the property, update other GUI elements linked to the property; and

a second frame associated with the web page and generated at the server system for communication to the client system in association with the first frame, the second frame comprising at least one of the other GUI elements linked to the property.

10.   **(Previously Presented)** The system of Claim 9, further comprising a third frame associated with the web page and generated at the server system for communication to the client system in association with the first and second frames, when executed at the client system the third frame operable to:

receive from the second frame data representing a configuration choice selection associated with at least one of the other GUI elements, the configuration choice selection of the second frame affecting the property of the associated configuration element;

post the data received from the second frame as a Hypertext Transfer Protocol (HTTP) request to the server system;

receive an HTTP response from the server system comprising data reflecting the update to the current state of the configuration resulting from the configuration choice selection of the second frame; and

communicate the data received from the server system to the second frame to initiate updating of other GUI elements for the third frame.

11.   **(Original)** The system of Claim 9, wherein the system consists of the web page comprising the first and second frames.

12.   **(Original)** The system of Claim 1, wherein the one or more software components comprise:

a first frame associated with a web page and generated at the server system for communication to the client system upon initiation of the configuration workflow, the first frame comprising a plurality of functions each operable when executed at the client system in response to a call to create a connector for a corresponding type of GUI element; and

a second frame associated with the web page and generated at the server system for communication to the client system in association with the first frame, the second frame comprising code associated with the GUI element and operable to, in response to the GUI element being initially generated for display, automatically call the function in the first frame that corresponds to the type of the GUI element to create the connector for the GUI element.

13.   **(Original)** The system of Claim 12, wherein the first and second frames comprise JavaServer Pages (JSPs), the called functions of the first frame comprise JavaScript functions, and the calling code of the second frame comprises JavaScript code.

14.   **(Previously Presented)** The system of Claim 1, wherein the one or more software components comprise:

a first non-viewable configuration application program interface (API) frame associated with a web page and generated at the server system for communication to the client system in response to initiation of the configuration workflow; and

one of a plurality of second viewable configuration dialog frames associated with the web page and generated at the server system for communication to the client system in association with the first frame in response to initiation of the configuration workflow.

15. **(Original)** The system of Claim 1, wherein the configuration is a configuration for a product, the configuration choice is associated with one or more configuration elements available for selection in configuring a corresponding portion of the product, and the configuration model is a product configuration model.

16. **(Original)** The system of Claim 1, wherein the GUI element is associated with a dynamic Hypertext Markup Language (DHTML) layer and comprises one of a text label, a text field, a text area, a radio button, a drop-down list box, a check box, and an image.

17. **(Previously Presented)** A method for automatically updating a graphical user interface (GUI) element at a client system according to an updated state of a configuration, comprising:

displaying a GUI element at the client system in connection with a configuration workflow, the GUI element being associated with one or more configuration choices for a configuration element of a configuration model stored at a server system;

creating and maintaining at the client system a connector linking a property of the configuration element of the configuration model to the GUI element;

maintaining at the client system configuration data representing a current state of a configuration in relation to the configuration model;

in response to a configuration choice selection at the GUI element during the configuration workflow, receiving data from the server system representing an update to the current state of the configuration with respect to the property of the configuration element; and

using the connector linking the property of the configuration element to the GUI element to cause other GUI elements to be automatically updated to reflect the updated state of the configuration with respect to the property of the configuration element in order to associate available configuration choices for the other GUI elements according to the configuration choice selection.

18.   (Original) The method of Claim 17, wherein the connector is created automatically at the client system in response to the GUI element being generated for display at the client system.

19.   (Previously Presented) The method of Claim 17, wherein the connector allows other GUI elements to be automatically updated to reflect the updated state of the configuration without requiring data associated with any properties. of any configuration elements unaffected by the configuration choice selection to be communicated from the server system to the client system and without requiring any GUI elements unaffected by the update to be updated.

20.   (Previously Presented) The method of Claim 17, wherein:

the configuration model comprises a plurality of configuration , each configuration element involving one or more configuration choices each having one or more configuration element properties; and

the method further comprises creating and maintaining at the client system a separate connector for each configuration element property that is to be linked to one of a plurality of GUI elements, such that each configuration element property may be linked to one or more GUI elements using separate connectors and each GUI element may be linked to one or more configuration element properties using separate connectors.

21.   (Original) The method of Claim 17, wherein code used to create the connector at the client system comprises a format string as a parameter, the format string allowing for Hypertext Markup Language (HTML) formatting of the GUI element linked to the connector according to the format string.

22.   **(Previously Presented)** The method of Claim 17, wherein code used to create the connector at the client system comprises a format string comprising JavaScript code, the format string allowing:

the updated state of the configuration to be determined in response to the configuration choice selection associated with the GUI element linked to the connector; and

if appropriate according to the updated state of the configuration, a different Hypertext Markup Language (HTML) class to be used for displaying the GUI element linked to the connector.

23.   **(Original)** The method of Claim 17, wherein code used to create the connector at the client system comprises a format string comprising JavaScript code, the format string allowing information associated with a configuration element specified in the format string to be obtained and used.

24.   **(Previously Presented)** The method of Claim 17, further comprising creating and maintaining at the client system:

a connector linking specified Hypertext Markup Language (HTML) layer content to a JavaScript function, the connector operable to be used to call the JavaScript function in response to the configuration choice selection associated with the HTML content to indicate the configuration choice selection;

a connector linking a specified HTML layer property to the JavaScript function, the connector operable to be used to call the JavaScript function in response to the configuration choice selection associated with the HTML layer to indicate the configuration choice selection; and

a connector linking the JavaScript function to a callback operable to communicate the configuration choice selection to the server system and, in response, receive the data representing the update from the server system.

25.   **(Previously Presented)** The method of Claim 17, further comprising:

loading at the client system a first frame associated with a web page and generated at the server system for communication to the client system upon initiation of the configuration workflow, the first frame operable to:

maintain the connector at the client system;

store the data representing the update to maintain configuration data representing the updated current state of the configuration at the client system;

according to the data representing the update, determine the property of the configuration element;

determine the connector for the property; and

use the connector for the property to update other GUI elements linked to the property; and

loading at the client system a second frame associated with the web page and generated at the server system for communication to the client system in association with the first frame, the second frame comprising at least one of the other GUI elements linked to the property.

26.   **(Previously Presented)** The method of Claim 25, further comprising loading at the client system a third frame associated with the web page and generated at the server system for communication to the client system in association with the first and second frames, when executed at the client system the third frame operable to:

receive from the second frame data representing a configuration choice selection associated with the at least one of the other GUI elements, the configuration choice selection of the second frame affecting the property of the associated configuration element;

post the data received from the second frame as a Hypertext Transfer Protocol (HTTP) request to the server system;

receive an HTTP response from the server system comprising data reflecting the update to the current state of the configuration resulting from the configuration choice selection of the second frame; and

communicate the data received from the server system to the second frame to initiate updating of other GUI elements for the third frame.

27.   **(Previously Presented)** The method of Claim 25, wherein:

the first frame comprises a non-viewable configuration application program interface (API) frame; and

the second frame is one of a plurality of viewable configuration dialog frames associated with the web page and generated at the server system for communication to the client system in association with the first frame in response to initiation of the configuration workflow.

28. **(Original)** The method of Claim 17, further comprising:

loading at the client system a first frame associated with a web page and generated at the server system f or communication to the client system upon initiation of the configuration workflow, the first frame comprising a plurality of functions each operable when executed at the client system in response to a call to create a connector for a corresponding type of GUI element; and

loading at the client system a second frame associated with the web page and generated at the server system for communication to the client system in association with the first frame, the second frame comprising code associated with the GUI element and operable to, in response to the GUI element being initially generated for display, automatically call the function in the first frame that corresponds to the type of the GUI element to create the connector for the GUI element.

29. **(Original)** The method of Claim 28, wherein the first and second frames comprise JavaServer Pages (JSPs) , the called functions of the first frame comprise JavaScript functions, and the calling code of the second frame comprises JavaScript code.

30. **(Original)** The method of Claim 17, wherein the configuration is a configuration for a product, the configuration choice is associated with one or more configuration elements available for selection in configuring a corresponding portion of the product, and the configuration model is a product configuration model.

31. **(Original)** The method of Claim 17, wherein the GUI element is associated with a dynamic Hypertext Markup Language (DHTML) layer and comprises one of a text label, a text field, a text area, a radio button, a drop-down list box, a check box, and an image.

32.   **(Previously Presented)** Software for automatically updating graphical user interface (GUI) elements at a client system according to an updated state of a configuration, the software being embodied in computer-readable media and when executed operable to:

display a GUI element at the client system in connection with a configuration workflow, the GUI element being associated with one or more configuration choices for a configuration element of a configuration model stored at a server system;

create and maintain at the client system a connector linking a property of the configuration element of the configuration model to the GUI element;

maintain at the client system configuration data representing a current state of a configuration in relation to the configuration model;

in response to a configuration choice selection at the GUI element during the configuration workflow, receive data from the server system representing an update to the current state of the configuration with respect to the property of the configuration element; and

use the connector linking the property of the configuration element to the GUI element to cause other GUI elements to be automatically updated to reflect the updated state of the configuration with respect to the property of the configuration element.

33.   **(Original)** The software of Claim 32, wherein the connector is created automatically at the client system in response to the GUI element being generated for display at the client system.

34.   **(Previously Presented)** The software of Claim 32, wherein the connector allows other GUI elements to be automatically updated to reflect the updated state of the configuration without requiring data associated with any properties of any configuration elements unaffected by the configuration choice selection to be communicated from the server system to the client system and without requiring any GUI elements unaffected by the update to be updated.

35. **(Previously Presented)** The software of Claim 32, wherein:

the configuration model comprises a plurality of configuration elements, each configuration element involving one or more configuration choices each having one or more configuration element properties; and

the software is further operable to create and maintain at the client system a separate connector for each configuration element property that is to be linked to one of a plurality of GUI elements, such that each configuration element property may be linked to one or more GUI elements using separate connectors and each GUI element may be linked to one or more configuration element properties using separate connectors.

36. **(Original)** The software of Claim 32, wherein code used to create the connector at the client system comprises a format string as a parameter, the format string allowing for Hypertext Markup Language (HTML) formatting of the GUI element linked to the connector according to the format string.

37. **(Previously Presented)** The software of Claim 32, wherein code used to create the connector at the client system comprises a format string comprising JavaScript code, the format string allowing:

the updated state of the configuration to be determined in response to the configuration choice selection associated with the GUI element linked to the connector; and

if appropriate according to the updated state of the configuration, a different Hypertext Markup Language (HTML) class to be used for displaying the GUI element linked to the connector.

38. **(Original)** The software of Claim 32, wherein code used to create the connector at the client system comprises a format string comprising JavaScript code, the format string allowing information associated with a configuration element specified in the format string to be obtained and used.

39.   **(Previously Presented)** The software of Claim 32, further operable to create and maintain at the client system:

a connector linking specified Hypertext Markup Language (HTML) layer content to a JavaScript function, the connector operable to be used to call the JavaScript function in response to the configuration choice selection associated with the HTML content to indicate the configuration choice selection

a connector linking a specified HTML layer property to the JavaScript function, the connector operable to be used to call the JavaScript function in response to the configuration choice selection associated with the HTML layer to indicate the configuration choice selection and

a connector linking the JavaScript function to a callback operable to communicate the configuration choice selection to the server system and, in response, receive the data representing the update from the server system.

40.   **(Previously Presented)** The software of Claim 32, comprising:

a first frame associated with a web page and generated at the server system for communication to the client system upon initiation of the configuration workflow, the first frame operable to:

maintain the connector at the client system;

store the data representing the update to maintain configuration data representing the updated current state of the configuration at the client system;

according to the data representing the update, determine the property of the configuration element;

determine the connector for the property; and

using the connector for the property to update other GUI elements linked to the property; and

a second frame associated with the web page and generated at the server system for communication to the client system in association with the first frame, the second frame comprising at least one of the other GUI elements linked to the property.

41.   **(Previously Presented)** The software of Claim 40, further comprising a third frame associated with the web page and generated at the server system for communication to the client system in association with the first and second frames, when executed at the client system the third frame operable to:

receive from the second frame data representing a configuration choice selection associated with the GUI element, the configuration choice selection of the second frame affecting the property of the associated configuration element;

post the data received from the second frame as a Hypertext Transfer Protocol (HTTP) request to the server system;

receive an HTTP response from the server system comprising data reflecting the update to the current state of the configuration resulting from the configuration choice selection of the second frame; and

communicate the data received from the server system to the second frame to initiate updating of at least one of the other GUI elements for the third frame.

42.   **(Original)** The software of Claim 40, wherein the software consists of the web page comprising the first and second frames.

43.   **(Original)** The software of Claim 32, comprising:

a first frame associated with a web page and generated at the server system for communication to the client system upon initiation of the configuration workflow, the first frame comprising a plurality of functions each operable when executed at the client system in response to a call to create a connector for a corresponding type of GUI element; and

a second frame associated with the web page and generated at the server system for communication to the client system in association with the first frame, the second frame comprising code associated with the GUI element and operable to, in response to the GUI element being initially generated for display, automatically call the function in the first frame that corresponds to the type of the GUI element to create the connector for the GUI element.

44.   (Original) The software of Claim 43, wherein the first and second frames comprise JavaServer Pages (JSPs) , the called functions of the first frame comprise JavaScript functions, and the calling code of the second frame comprises JavaScript code.

45.   (Previously Presented) The software of Claim 32, comprising:

a first non-viewable configuration application program interface (API) frame associated with a web page and generated at the server system for communication to the client system in response to initiation of the configuration workflow; and

one of a plurality of second viewable configuration dialog frames associated with the web page and generated at the server system for communication to the client system in association with the first frame in response to initiation of the configuration workflow.

46.   (Original) The software of Claim 32, wherein the configuration is a configuration for a product, the configuration choice is associated with one or more configuration elements available for selection in configuring a corresponding portion of the product, and the configuration model is a product configuration model.

47.   (Original) The software of Claim 32, wherein the GUI element is associated with a dynamic Hypertext Markup Language (DHTML) layer and comprises one of a text label, a text field, a text area, a radio button, a drop-down list box, a check box, and an image.

48.   **(Previously Presented)** A system for automatically updating graphical user interface (GUI) elements at a client system according to an updated state of a configuration, comprising:

means for displaying a GUI element at the client system in connection with a configuration workflow, the GUI element being associated with one or more configuration choices for a configuration element of a configuration model stored at a server system;

means for creating and maintaining at the client system a connector linking a property of the configuration element of the configuration model to the GUI element;

means for maintaining at the client system configuration data representing a current state of a configuration in relation to the configuration model;

means for receiving, in response to a configuration choice selection at the GUI element during the configuration workflow, data from the server system representing an update to the current state of the configuration with respect to the property of the configuration element; and

means for using the connector linking the property of the configuration element to the GUI element to cause other GUI elements to be automatically updated to reflect the updated state of the configuration with respect to the property of the configuration element in order to associate available configuration choices for the other GUI elements according to the configuration choice selection.